

July 15, 2019

Chris Hines
Ash Grove Cement Company
100 Montana Highway 518
Clancy, MT 59634

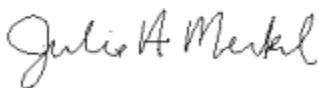
RE: Decision (Administrative Amendment) #OP2005-11 - Ash Grove Cement Company

Dear Mr. Hines:

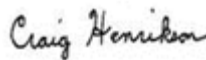
The Department of Environmental Quality has prepared the enclosed Decision on Operating Permit #OP2005-11, for Ash Grove Cement Company, located in Section 12, Township 9 North, Range 3 West, in Jefferson County, Montana. Please review the cover page of the attached permit for information pertaining to the action taking place on Operating Permit #OP2005-11.

If you have any questions, please contact Craig Henrikson, the permit writer, at (406) 444-6711 or by email at chenrikson@mt.gov.

Sincerely,



Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626



Craig Henrikson, P.E.
Environmental Engineer
Air Quality Bureau
(406) 444-6711

JM: CH
Enclosure

cc: Gail Fallon US EPA Region VIII 8P-AR
Jeff Briggs, Ash Grove Cement Company
Bob Gallagher, EPA Helena
Carson Coate, EPA Helena

STATE OF MONTANA
Department of Environmental Quality
Helena, Montana 59620

AIR QUALITY OPERATING PERMIT: OP2005-11

Administrative Amendment Application Received: **June 28, 2019**
Application Deemed Administratively Complete: **June 28, 2019**
Application Deemed Technically Complete: **June 28, 2019**
AFS Number **030-043-0001A**

Date of Decision: **July 15, 2019**
Effective Date: **August 15, 2019**
Expiration Date: **June 20, 2022**
Renewal Application Due: **December 20, 2021**

In accordance with the Montana Code Annotated (MCA) Sections 75-2-217 and 218, and the Administrative Rules of Montana (ARM) Title 17, Chapter 8, Subchapter 12, Operating Permit Program, ARM 17.8.1201, *et seq.*,

Ash Grove Cement Company – Montana City
100 Montana Highway 518
Clancy, MT 59634

hereinafter referred to as Ash Grove, is authorized to operate a stationary source of air contaminants consisting of the emission units described in this permit. Until this permit expires or is modified or revoked, Ash Grove is allowed to discharge air pollutants in accordance with the conditions of this permit. All conditions in this permit are federally and state enforceable unless otherwise specified. Requirements which are state only enforceable are identified as such in the permit. A copy of this permit must be kept on site at the above-named facility.

Permit Issuance and Appeal Process: In accordance with Section 75-2-218, MCA, the Department of Environmental Quality's (Department) decision regarding issuance of an operating permit is not effective until 30 days have elapsed from the date of the decision issued July 15, 2019. The decision may be appealed to the Board of Environmental Review (Board) by filing a request for a hearing within 30 days after the date of decision. The filing of a request for hearing does not stay the Department's decision, unless the Board orders a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-218(6)(b), MCA. If no stay is ordered, the Department's decision on the application is final 30 days after the decision is made and the Department will send notification and a final permit cover page to be attached to this document stating that the permit is final. Questions regarding the final issuance date and status of appeals should be directed to the Department at (406) 444-3490.

Montana Air Quality Operating Permit
Department of Environmental Quality

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Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix B of this permit have the meaning assigned to them in the referenced regulations.

SECTION I. GENERAL INFORMATION

The following general information is provided pursuant to ARM 17.8.1210(1).

Company Name: Ash Grove Cement Company

Mailing Address: 100 Montana Highway 518

City: Clancy **State:** Montana **Zip:** 59634

Plant Location: Approximately 1.8 km east of the I-15 and Highway 518 interchange near Montana City and approximately 5 km south of East Helena.

Responsible Official: Chris Hines **Phone:** (406) 442-8855

E-mail: chris.hines@ashgrove.com

Facility Contact Person: Jeff Briggs **Phone:** (406) 444-7128

E-Mail: Jeff.briggs@ashgrove.com

Primary SIC Code: 3241 (plant), 1422 (quarry)

Nature of Business: Portland Cement Manufacturing

Description of Process:

The production of Portland cement begins at the quarry. For Ash Grove, approximately 85 to 99 percent of the raw materials used in the cement process are combined high and low-grade limestone quarried from Clark's Gulch quarry. Limestone rock and other raw materials are blasted and loaded onto trucks and transported to the crusher or to stockpiles. The raw materials are conveyed from the primary and secondary crushers and delivered by bucket elevator to the storage bins. From the storage bins, the raw materials are conveyed to the ball mill where the ore is ground with water to form slurry and sent to storage tanks. In the tanks, the slurry is blended thoroughly before entering the kiln. Slurry is pumped to the uphill end of the kiln and heated, evaporating water from the slurry forming clinker. The Ash Grove plant uses a combination of natural gas, coal and/or coke, heavy oils and pitch as fuel sources for the clinker production. When the clinker leaves the kiln, it is cooled, transported by drag chains, pan conveyor and bucket elevator to the clinker bins or outside storage. From there, clinker and gypsum go to the finish ball mill, where it is ground together with gypsum to produce Portland cement. The final cement product is conveyed to storage silos where it is loaded into railroad cars, bulk trucks, or bagged and loaded onto trucks.

SECTION II. SUMMARY OF EMISSION UNITS

The emission units regulated by this permit include the following (ARM 17.8.1211):

| Emissions Unit ID | | Description | Pollution Control Device/Practice |
|-------------------|------|--------------------------------------|---|
| EU001 | AS | Air Separator | Baghouse (DA-21) |
| EU002 | CLC | Clinker Cooler | Baghouse (DA-23) |
| EU003 | CPC | Convey/Primary Crusher | Baghouse (DA-1) |
| EU004 | FC | Fuel Conveyors | None/ Conveyor and Transfer Point Covers, and Structural Enclosures |
| EU005 | FT | Fuel Transfer | None/Structural Enclosures |
| EU006 | KILN | Cement Kiln | Pulse Jet Baghouse/SNCR/Semi-Dry Scrubber, Low NOx Burner |
| EU007 | PSC | Product Separator and Cement Coolers | Baghouse (DA-9 East) |
| EU008 | RD | Road Dust | None/Reasonable Precautions |
| EU009 | SLB | Storage Loadout - B | Baghouse (DA-15) |
| EU010 | ST | Stone Transfer | None |
| EU011 | TBC | Transfer Belt Conveyors | Baghouse (DA-4) |
| EU012 | TBM | Transfer/Convey to Ball Mill | Baghouse (DA-6) |
| EU013 | TFM | Transfer to/from Finish Mill | Baghouse (DA-9 West) |
| EU014 | TLS | Transfer to Limestone Silos | Baghouse (DA-5) |
| EU015 | WE | Wind Erosion | None |
| EU016 | AUXE | 105 Hp Auxiliary Kiln Drive Engine | None |
| EU017 | GD | Gasoline Dispensing | None |

SECTION III. PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emission units located at the facility (ARM 17.8.1211, 1212, and 1213).

A. Facility-Wide

| Conditions | Rule Citation | Rule Description | Pollutant/Parameter | Limit |
|------------|--|---|---|---|
| A.1 | ARM 17.8.105 | Testing Requirements | Testing Requirements | ----- |
| A.2 | ARM 17.8.304(1) | Visible Air Contaminants | Opacity | 40% |
| A.3 | ARM 17.8.304(2) | Visible Air Contaminants | Opacity | 20% |
| A.4 | ARM 17.8.308(1) | Particulate Matter, Airborne | Fugitive Opacity | 20% |
| A.5 | ARM 17.8.308(2) | Particulate Matter, Airborne | Reasonable Precautions | ----- |
| A.6 | ARM 17.8.308 | Particulate Matter, Airborne | Reasonable Precaution, Construction | 20% |
| A.7 | ARM 17.8.309 | Particulate Matter, Fuel Burning Equipment | Particulate Matter | $E = 0.882 * H^{-0.1664}$ Or $E = 1.026 * H^{-0.233}$ |
| A.8 | ARM 17.8.310 | Particulate Matter, Industrial Processes | Particulate Matter | $E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$ |
| A.9 | ARM 17.8.322(4) | Sulfur Oxide Emissions, Sulfur in Fuel | Sulfur in Fuel (liquid or solid fuels) | 1 lb/MMBtu fired |
| A.10 | ARM 17.8.322(5) | Sulfur Oxide Emissions, Sulfur in Fuel | Sulfur in Fuel (gaseous) | 50 gr/100 CF |
| A.11 | ARM 17.8.324(3) | Hydrocarbon Emissions, Petroleum Products | Gasoline Storage Tanks | ----- |
| A.12 | ARM 17.8.324 | Hydrocarbon Emissions, Petroleum Products | 65,000 Gallon Capacity | ----- |
| A.13 | ARM 17.8.324 | Hydrocarbon Emissions, Petroleum Products | Oil-effluent Water Separator | ----- |
| A.14 | ARM 17.8.342 | NESHAPs General Provisions | SSM Plans | Submittal |
| A.14 | ARM 17.8.1211(1)(c) and 40 CFR Part 98 | Greenhouse Gas Reporting | Reporting | ----- |
| A.15 | ARM 17.8.1212 | Reporting Requirements | Prompt Deviation Reporting | ----- |
| A.16 | ARM 17.8.1212 | Reporting Requirements | Compliance Monitoring | ----- |
| A.17 | ARM 17.8.1207 | Reporting Requirements | Annual Certification | ----- |

Conditions

- A.1. Pursuant to ARM 17.8.105, any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct test, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

Compliance demonstration frequencies that list “as required by the Department” refer to ARM 17.8.105. In addition, for such sources, compliance with limits and conditions listing “as required by the Department” as the frequency, is verified annually using emission factors and engineering calculations by the Department’s compliance inspectors during the annual emission inventory review; in the case of Method 9 tests, compliance is monitored during the regular inspection by the compliance inspector.

- A.2. Pursuant to ARM 17.8.304(1), Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.
- A.3. Pursuant to ARM 17.8.304(2), Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.
- A.4. Pursuant to ARM 17.8.308(1), Ash Grove shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.
- A.5. Pursuant to ARM 17.8.308(2), Ash Grove shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter, unless otherwise specified by rule or in this permit.
- A.6. Pursuant to ARM 17.8.308, Ash Grove shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.
- A.7. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, Ash Grove shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968):

$$E = 0.882 * H^{-0.1664}$$

For new fuel burning equipment (installed on or after November 23, 1968):

$$E = 1.026 * H^{-0.233}$$

Where H is the heat input capacity in million BTU (MMBtu) per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu.

- A.8. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, Ash Grove shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using the following equations:

For process weight rates up to 30 tons per hour: $E = 4.10 * P^{0.67}$

For process weight rates in excess of 30 tons per hour: $E = 55.0 * P^{0.11} - 40$

Where E = rate of emissions in pounds per hour and p = process weight rate in tons per hour.

- A.9. Pursuant to ARM 17.8.322(4), Ash Grove shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million BTU fired, unless otherwise specified by rule or in this permit.
- A.10. Pursuant to ARM 17.8.322(5), Ash Grove shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit.
- A.11. Pursuant to ARM 17.8.324(3), Ash Grove shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.
- A.12. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Ash Grove shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000 gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.
- A.13. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Ash Grove shall not use any compartment of any single or multiple-compartment oil-effluent water separator, which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.
- A.14. Pursuant to ARM 17.8.1211(1)(c) and 40 CFR Part 98, Ash Grove shall comply with requirements of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting, as applicable (ARM 17.8.1211(1)(c), NOT an applicable requirement under Title V).
- A.15. Ash Grove shall promptly report deviations from permit requirements including those attributable to upset conditions, as upset is defined in the permit. To be considered prompt, deviations shall be reported to the Department using the schedule and content as described in Section V.E (unless otherwise specified in an applicable requirement) (ARM 17.8.1212).

- A.16. On or before February 15 and August 15 of each year, Ash Grove shall submit to the Department the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emissions unit. For the reports due by February 15 of each year, Ash Grove may submit a single report, provided that it contains all the information required by Sections V.B & V.D. Per ARM 17.8.1207,

any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”

- A.17. By February 15 of each year, Ash Grove shall submit to the Department the compliance certification required by Section V.B. The annual certification required by Section V.B must include a statement of compliance based on the information available that identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”

B. EU001 – Air Separator (AS)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--------------------------------|----------------------------|---|---------------------------------------|---|------------------------|
| B.1, B.4, B.7, B.9, B.10, B.11 | Opacity | 10% | Method 9 | As Required by the Department and Section III.A.1 | Semi-Annual |
| B.2, B.5, B.7, B.9, B.10, B.11 | Particulate Matter | 0.01 gr/dscf | Method 5 | Once during 5-year permit term | Semi-Annual |
| B.3, B.6, B.8, B.10, B.11 | Emission Control Equipment | Operation and maintenance of emission control equipment | Operation and maintenance of baghouse | Whenever process equipment is operating | Semi-Annual |

Conditions

- B.1. Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the air separator baghouse that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart F).
- B.2. Particulate emissions from the air separator baghouse (DA-21) shall not exceed 0.01 gr/dscf (ARM 17.8.752).
- B.3. Ash Grove shall operate and maintain a baghouse to control emissions from the high efficiency air separator (ARM 17.8.752).

Compliance Demonstration

- B.4. As required by the Department and Section III.A.1, Ash Grove shall perform a Method 9 test, to demonstrate compliance with the 10% opacity limit in Section III.B.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures manual (ARM 17.8.106 and ARM 17.8.1213).
- B.5. A Method 5 or other Department approved test shall be performed once during the 5-year permit period, to monitor compliance with the particulate emission limit in Section III.B.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual and maintained on site (ARM 17.8.106 and ARM 17.8.1213).
- B.6. Ash Grove shall operate, inspect, and maintain the baghouse in accordance with Appendix E to monitor compliance with Section III.B.3 (ARM 17.8.1213).

Recordkeeping

- B.7. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).
- B.8. Ash Grove shall maintain, on site, records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).

Reporting

- B.9. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- B.10. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- B.11. The semiannual monitoring report shall provide (ARM 17.8.1212):
 - a. A summary of results of any source testing that was performed during the semiannual period; and

- b. A summary of any instance that the baghouse was not operated and maintained as required by Section III.B.6.

C. EU002 – Clinker Cooler (CLC)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|--|---------------------|---|---|---|------------------------|
| C.1, C.4, C.7, C.11, C.12. | Opacity | 20% | Method 9 | As Required by the Department and Section III.A.1 | Semiannual |
| C.2, C.3, C.5, C.6, C.7, C.8, C.9, C.10, C.11, C.12. | Particulate Matter | 0.07 lb/ton of clinker produced | Method 5 (or equivalent) | Annually | Semiannual |
| | | | CPMS | Ongoing | 40 CFR 63, Subpart LLL |
| | | Operation and maintenance of baghouse (DA-23) | Operate and maintain baghouse in accordance with Appendix E | Maintenance Log | Semiannual |

Conditions

- C.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from the clinker cooler baghouse that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304(1)).
- C.2. Ash Grove may not exceed a PM emission rate of 0.07 lb/ton of clinker produced from the clinker cooler stack, excluding startup and shutdown periods of operation, based on an annual Method 5 stack performance test and PM continuous parametric monitoring system (CPMS). Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance (ARM 17.8.749, ARM 17.8.342, and 40 CFR 63, Subpart LLL).
- C.3. Ash Grove shall operate and maintain the baghouse (DA-23) when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

- C.4. As required by the Department and Section III.A.1, Ash Grove shall perform a Method 9 test, to demonstrate compliance with the 20% opacity limit in Section III.C.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures manual and maintained on site (ARM 17.8.106 and ARM 17.8.1213).

- C.5. Ash Grove shall monitor the clinker cooler stack emissions to demonstrate compliance with the PM limit of 0.07 lb/ton of clinker in Section III.C.2 as follows: (a) annually conducting a Method 5 (or equivalent) performance stack test; and (b) operating a PM CPMS. Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance (40 CFR 63, Subpart LLL, ARM 17.8.105, ARM 17.8.106, ARM 17.8.749, and ARM 17.8.342).
- C.6. Ash Grove shall operate, inspect, and maintain the baghouse in accordance with Appendix E to monitor compliance with Section III.C.3 (ARM 17.8.1213).

Recordkeeping

- C.7. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).
- C.8. Ash Grove shall calculate and record the PM CPMS arithmetic average operating parameter in units of the operating limit on a 30-operating day rolling average basis, updated at the end of each kiln operating day. For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter, Ash Grove must:
- a. Within 48 hours of the exceedance, visually inspect the APCD.
 - b. If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
 - c. Within 30 days of the exceedance or at the same time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. Ash Grove is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph.

PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this condition (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

- C.9. Ash Grove shall maintain, on site, records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).

Reporting

- C.10. Ash Grove shall comply with all applicable reporting requirements contained in 40 CFR 63 Subpart LLL (ARM 17.8.1212 and 40 CFR Part 63).
- C.11. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

C.12. The semiannual reporting shall provide the following (ARM 17.8.1212);

- a. A summary of results of any source testing that was performed during that semiannual period; and
- b. A summary of any instance that the baghouse was not operated and maintained as required by Section III.C.6.

D. EU003 – Convey/Primary Crushing (CPC)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|--------------------------------|-----------------------------------|--|--|------------------------------------|--------------------------------|
| D.1, D.4, D.7, D.9, D.10 | Opacity | 7% | Method 9 | Once during 5- year permit term | As required by the Protocol |
| D.2,D.5, D.7, D.9, D.10 | Particulate Matter | 0.02 gr/dscf | Method 5 | Once during 5- year permit term | As required by the Protocol |
| D.3,D.6, D.8, D.9, D.10 | Emissions Control Equipment | Operation and maintenance of emission control equipment | Operation and maintenance of baghouse | Semiannual | Semiannual |

Conditions

- D.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any transfer point or belt conveyor or from any other affected facility any stack emissions that exhibit greater than 7 percent opacity (ARM 17.8.340 and 40 CFR, Subpart OOO).
- D.2. Particulate emissions from the dust collection system (DA-1) shall not exceed 0.02 gr/dscf (ARM 17.8.752).
- D.3. Ash Grove shall operate and maintain emission control equipment when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

- D.4. A Method 9 test shall be performed once during the 5-year permit period to monitor compliance with the 7% opacity limit in Section III.D.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- D.5. A Method 5 or other Department approved test shall be performed once during the 5-year permit period to monitor compliance with the particulate emission limitation in Section III.D.2. The test methods and procedures shall be conducted in accordance with 40 CFR 60.675(b) and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- D.6. Ash Grove shall inspect and maintain the baghouse in accordance with Appendix E of this permit to monitor compliance with Section III.D.3 (ARM 17.8.1213).

Recordkeeping

- D.7. All source testing recordkeeping shall be performed in accordance with the Source Test Protocol and Procedures Manual and maintained on site (ARM 17.8.106 and ARM 17.8.1212).
- D.8. Ash Grove shall maintain records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).

Reporting

- D.9. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- D.10. The semiannual reporting shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

E. EU004 – Fuel Conveyors (FC)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--|-------------------------|---------------------|---|---|---------------------------|
| E.1, E.3, E.4, E.5, E.6, E.7, E.8 | Opacity | 20% | Method 9 | As required by the Department and Section III.A.1 | Semiannual |
| | | | Use and maintenance of structural enclosures and covers | Whenever process equipment is operating | Semiannual |
| E.2, E.4, E.5, E.6, E.7 | Particulate Matter | $E=55.0p^{0.11-40}$ | Use and maintenance of structural enclosures and covers | Whenever process equipment is operating | Semiannual |

Conditions

- E.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from the Fuel Conveyors that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.340, 40 CFR60, Subpart Y and ARM 17.8.304).
- E.2. Pursuant to ARM 17.8.310, the particulate emissions from process weight shall not exceed the value calculated by $E=55.0p^{0.11-40}$, where E = rate of emission in pounds per hour and p = process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

- E.3. As required by the Department and Section III.A.1, Ash Grove shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions on the Fuel Conveyors. Under the visual survey option, once per calendar week, during daylight hours, Ash Grove shall visually survey the Fuel Conveyors for any visible emissions. If visible emissions are observed during the visual survey, Ash Grove must either conduct a Method 9 source test, or shut down the equipment for repairs. The Method 9 source test or source shutdown must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 15% opacity based on the Method 9 source test, Ash Grove shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then Ash Grove shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve Ash Grove of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.1213).

- E.4. Whenever process equipment is operating, Ash Grove shall use and maintain, as they were intended, all conveyor covers, transfer point cover, or structural enclosures surrounding process equipment to monitor compliance with Section III.E.1 and III.E.2 (ARM 17.8.1213).

Recordkeeping

- E.5. If visual surveys are performed, Ash Grove shall maintain a log to verify that the visual surveys were performed as specified in Section III.E.3. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).
- E.6. Ash Grove shall maintain on site a log of all repair and maintenance activity to structural enclosures. The log must include, but is not limited to, the date, time, and action(s) taken. The maintenance log shall be maintained as a permanent business record for at least five years following the activity. The log shall be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- E.7. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- E.8. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

F. EU005 –Fuel Transfer (FT)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|-------------------------|---------------------|---------------------|---|---|------------------------|
| F.1, F.3, F.5, F.6, F.7 | Opacity | 20% | Method 9 | As required by the Department and Section III.A.1 | Semiannual |
| F.2, F.4, F.5, F.6, F.7 | Particulate Matter | $E=55.0p^{0.11-40}$ | Use and maintenance of structural enclosure | Whenever process equipment is operating | Semiannual |

Conditions

- F.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from Fuel Transfer that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.340, 40 CFR 60, Subpart Y. and ARM 17.8.304(2)).
- F.2. Pursuant to ARM 17.8.310, the particulate emissions from process weight shall not exceed the value calculated by $E = 55.0p^{0.11-40}$, where E = rate of emission in pounds per hour and p = process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

- F.3. As required by the Department and Section III.A.1, Ash Grove shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions on the Fuel Transfer. Under the visual survey option, once per calendar week, during daylight hours, Ash Grove shall visually survey the Fuel Transfer for any visible emissions. If visible emissions are observed during the visual survey, Ash Grove must either conduct a Method 9 source test, or shut down the equipment for repairs. The Method 9 source test or source shutdown must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 15% opacity based on the Method 9 source test, Ash Grove shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then Ash Grove shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve Ash Grove of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.1213).

- F.4. During truck or rail car unloading, Ash Grove shall use and maintain the structural enclosure surrounding the hopper, dual flow feeder, and a portion of a conveyor belt CB-22 for monitoring pertaining to the particulate matter limit in Section III.F.2 (ARM 17.8.309).

Recordkeeping

- F.5. If visual surveys are performed, Ash Grove shall maintain a log to verify that the visual surveys were performed as specified in Section III.F.3. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).
- F.6. Ash Grove shall maintain on site a log of all repair and maintenance activity to structural enclosures. The log must include, but is not limited to, the date, time, and action(s) taken. The maintenance log shall be maintained as a permanent business record for at least five years following the activity. The log shall be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- F.7. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- F.8. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

G. EU006 – Cement Kiln (KILN)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---|--------------------------------------|--|--|--|---------------------------|
| G.1, G.13, G.14, G.27, G.30, G.39, G.42, G.43 | Opacity | 40% | Operation and maintenance of Pulse Jet Baghouse | Whenever process equipment is operating | Semiannual |
| | | | Method 9 | As requested by the Department | Semiannual |
| G.2, G.13, G.14, G.15, G.16, G.17, G.18, G.25, G.27, G.29, G.30, G.35, G.36, G.39, G.41, G.42, G.43 | Filterable Particulate Matter | 0.07 lb/ton of clinker based on a 30-day rolling average from the kiln during startup, shutdown, malfunction and normal operation | Operation and maintenance of Pulse Jet Baghouse | Whenever process equipment is operating | Semiannual |
| | | | Method 5 | Annually | Semiannual |
| | | | CPMS | Ongoing | Semiannual |
| G.3, G.16, G.17, G.18, G.30, G.33, G.35, G.36, G.39, G.40, G.41, G.42, G.43 | Sulfur Dioxide (SO ₂) | 2.0 lb/ton clinker (30-day rolling average) from the kiln during startup, shutdown, malfunction and normal operation | CEMS | Ongoing | Semiannual |
| | | Semi-Dry Scrubbing Control | | | |

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Method | Demonstration Frequency | Reporting Requirements |
|---|--------------------------------|--|---|----------------------------|---------------------------|
| G.4, G.5, G.30, G.33, G.35, G.36, G.39, G.40, G.41, G.42, G.43 | Oxides of Nitrogen (NOx) | Operate Low NOx Burner Technology | CEMS | Ongoing | Semiannual |
| | | Operate SNCR | | | |
| | | 7.5 lb/ton of clinker (30-day rolling average) from the kiln during startup, shutdown, malfunction and normal operation | | | |
| G.6, G.19, G.28, G.42, G.43 | Operational Limit (glass) | 800 tons/year | Recordkeeping | When using glass | Semiannual |
| G.7, G.20, G.23, G.26, G.27, G.36, G.42, G.43 | Dioxins/Furans | 0.20 ng per dscm corrected to 7% Oxygen | Method 23 | Every 30 Months | Semiannual |
| | | | Inspection of Combustion Components | Annual | Semiannual |
| G.8, G.21, G.26, G.30, G.34, G.35, G.36, G.39, G.42, G.43 | Mercury | 55 lbs per million tons of clinker (30-day rolling average) | 40 CFR 63, Subpart LLL | 40 CFR 63, Subpart LLL | 40 CFR 63, Subpart LLL |
| G.9, G.10, G.22, G.26, G.30, G.36, G.39, G.42, G.43 | THC or Total Organic HAP | THC 24 ppm or Organic Air Toxics – 12 ppmv | 40 CFR 63, Subpart LLL | 40 CFR 63, Subpart LLL | 40 CFR 63, Subpart LLL |
| G.11, G.23, G.26, G.30, G.31, G.36, G.39, G.42 | Operational Limit | Inlet temperature to PMCD | Continuous Monitor | Ongoing | Semiannual |
| G.12, G.24, G.26, G.30, G.42 | Work Practices | Work Practices | 40 CFR 63, Subpart LLL | 40 CFR 63, Subpart LLL | 40 CFR 63, Subpart LLL |

Conditions

- G.1. Ash Grove may not cause or authorize to be discharged into the atmosphere from the cement kiln any stack emissions that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
- G.2. Ash Grove shall install and operate baghouse control technology on the kiln exhaust and may not exceed a filterable PM emission rate of 0.07 lb/ton of clinker based on a 30-day rolling average from the kiln during startup, shutdown, malfunction, and normal operation (Consent Decree 57 and ARM 17.8.749).

- G.3. Ash Grove shall install and operate Semi-Dry Scrubbing control technology on the kiln stack and comply with an SO₂ emission limit of 2.0 lb/ton of clinker based on a 30-day rolling average including startup, shutdown, and malfunction periods (Consent Decree 47 and ARM 17.8.749).
- G.4. Ash Grove shall continuously operate low NO_x burner technology on the kiln (Consent Decree 27 and ARM 17.8.749).
- G.5. Ash Grove shall install and operate selective non-catalytic reduction (SNCR) control technology and comply with a NO_x emission limit of 7.5 lb/ton of clinker based on a 30-day rolling average including startup, shutdown, and malfunction periods (Consent Decree 28 and ARM 17.8.749).
- G.6. The amount of post-consumer recycled glass used by Ash Grove in the cement kiln shall be limited to 800 tons during any rolling 12-month period (ARM 17.8.752).
- G.7. Ash Grove may not cause to be discharged into the atmosphere from the kiln, excluding hours of operation during startup and shutdown, any gases that contain dioxins and furans (D/F) in excess of (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749):
- a. 0.20 nanograms per dry standard cubic meter (ng per dscm) (8.7×10^{-11} grains per dry standard cubic feet (gr per dscf)) Toxic Equivalent (TEQ) corrected to 7% oxygen; and
 - b. 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to 7% oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.
- G.8. Ash Grove may not exceed emissions of 55 pounds of mercury per million tons of clinker from the main kiln stack averaged over 30 days of continuous monitoring excluding hours of operation of startup, and shutdown (40 CFR 63, Subpart LLL, ARM 17.8.342 and ARM 17.8.749).
- G.9. Ash Grove may not exceed emissions of 24 parts per million by volume (ppmv) THC (measured as propane and corrected to 7% oxygen) from the main kiln stack averaged over 30 days of continuous monitoring excluding hours of operation of startup and shutdown (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).
- G.10. As an alternative to the THC limit in Section III.G.9, Ash Grove may comply with a 12 ppmv on a rolling 30-day average organic air toxic limit from the main kiln stack excluding hours of operation of startup and shutdown (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).
- G.11. Ash Grove shall utilize “work practices” for the existing kiln as identified in 40 CFR 63.1346(f), 40 CFR 63.1346(g), and 40 CFR 63.1348(b)(9) (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).
- G.12. Ash Grove shall operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) does not exceed the applicable temperature limit specified in 40 CFR 63.1346(b) (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

Compliance Demonstration

- G.13. Ash Grove shall inspect and maintain the Pulse Jet Baghouse in accordance with Appendix E of this permit to monitor compliance with the opacity and particulate limits in Section III.G.1 and Section III.G.2 (ARM 17.8.749).
- G.14. Ash Grove shall perform a Method 9 test as requested by the Department. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- G.15. Ash Grove shall install, operate, and maintain a PM CPMS on the kiln and establish a Site-Specific Operating Limit (SSOL) for PM in accordance with the requirements of Appendix B of the Consent Decree and 40 CFR 63.1350(b) and (d). Ash Grove shall conduct the performance test using EPA Method 5 or Method 5I of Appendix A-3 of 40 CFR Part 60. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the following exceptions: If demonstrating compliance with 40 CFR Part 52.1396, the test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet, per 40 CFR Part 52.1396. Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance. The compliance demonstration shall be an initial test and within 365 operating days thereafter. Ash Grove may employ the SSOL methodology in 40 CFR 63.1349(b) in lieu of this methodology (Consent Decree 56, 59, 60, and ARM 17.8.749).
- G.16. Ash Grove shall record the hourly clinker production rates in accordance with the requirements found at 40 CFR 63.1350(d) (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).
- G.17. Ash Grove shall record the daily clinker production rates in accordance with the requirements found at 40 CFR 60.63(b) (ARM 17.8.340 and 40 CFR 52.1396).
- G.18. Ash Grove shall install and operate a NO_x CEMS and SO₂ CEMS at each stack from which the kiln directly discharges emissions. The CEMS shall be operated at all times during kiln operation except during CEMS breakdowns, repairs, calibration checks and zero and span adjustments (Consent Decree 32, 34, 51, 52, and ARM 17.8.749).
- G.19. Ash Grove shall maintain a log of the amount of recycled glass used in the kiln each month. By the 25th day of each month, Ash Grove shall total the amount of recycled glass used in the kiln during the previous 12 months to monitor compliance with the limitation in Section III.G.6 (ARM 17.8.749 and ARM 17.8.1213).
- G.20. Ash Grove shall monitor compliance with the D/F emission limit by conducting a performance test using Method 23 of Appendix A of 40 CFR 60. The performance test shall be conducted every 30 months. Ash Grove shall repeat the performance test for the kiln within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test (40 CFR 63.1349, ARM 17.8.342 and ARM 17.8.1213).
- G.21. Ash Grove shall monitor compliance with the mercury limit in Section G.8 using a mercury CEMS or sorbent trap monitoring system as specified in 40 CFR 63.1305(k) (ARM 17.8.105, ARM 17.8.106, ARM 17.8.342, ARM 17.8.749, and 40 CFR 63, Subpart LLL).

- G.22. Ash Grove shall demonstrate compliance with the THC limit (measured as propane and corrected to 7% oxygen) in Section III.G.9 or the alternative limit in Section III.G.10 in accordance with the requirements of 40 CFR 63.1350(i) or (j). (ARM 17.8.105, ARM 17.8.106, ARM 17.8.342, ARM 17.8.749, and 40 CFR 63, Subpart LLL).
- G.23. Ash Grove shall install, calibrate, maintain and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln upstream of the kiln PM control device for monitoring of D/F emissions. The calibration of all thermocouples and other temperature sensors shall be completed at least once every 3 months (40 CFR 63.1350, ARM 17.8.342 and ARM 17.8.1213).
- G.24. Ash Grove shall conduct an inspection of the components of the kiln's combustion system at least once per year (40 CFR 63.1350 and ARM 17.8.1213).

Recordkeeping

- G.25. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the Pulse Jet Baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to the Department upon request (ARM 17.8.1212).
- G.26. Ash Grove shall comply with all applicable recordkeeping and notification requirements contained in 40 CFR 63 Subpart LLL (ARM 17.8.342 and 40 CFR Part 63, Subpart LLL).
- G.27. All test records must be maintained on site and submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- G.28. Ash Grove shall maintain on site, records required by Section III. G.19 and submit the information to the Department upon request (ARM 17.8.1212).
- G.29. Ash Grove shall calculate and record the PM CPMS arithmetic average operating parameter in units of the operating limit on a 30-day operating day rolling average basis, updated at the end of each kiln operating day. For any exceedance of the 30 process operating day PM CPMS average value from the establish operating parameter, Ash Grove must:
- a. Within 48 hours of the exceedance, visually inspect the APCD;
 - b. If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
 - c. Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or reestablish the PM CPMS operating limit within 45 days. Ash Grove is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emission compliance test required under this paragraph.

PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this condition (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

- G.30. Ash Grove shall calculate and record the 30-day operating day rolling emission rates of SO₂ and NO_x in lb/ton of clinker produced including startup, shutdown, and malfunction periods, as the total of all hourly emissions data for the cement kiln in the preceding 30 days, divided by the total tons of clinker produced in that kiln during the same 30-day operating period, using the following equation (40 CFR Part 52.1396):

$$E_D = k \frac{1}{(n)} \sum_{i=1}^n C_i Q_i / P_i$$

Where:

E_D = 30 kiln operating day average emission rate of NO_x or SO₂, lb/ton of clinker;

C_i = Concentration of NO_x or SO₂ for hour i , ppm;

Q_i = volumetric flow rate of effluent gas for hour i , where C_i and Q_i are on the same basis (either wet or dry), scf/hr;

P_i = total kiln clinker produced during production hour i , ton/hr;

k = conversion factor, $1.194 \times 10E-7$ for NO_x and $1.660 \times 10E-7$ for SO₂; and

n = number of kiln operating hours over 30 kiln operating days, $n = 1$ to 720

For each kiln operating hour for which Ash Grove does not have at least one valid 15-minute CEMS data value, Ash Grove must use the average emissions rate (lb/hr) from the most recent previous hour for which valid data are available. Hourly clinker production shall be determined by Ash Grove in accordance with the requirements found at 40 CFR 60.63(b). Ash Grove must operate the monitoring system and collect data at all required intervals at all times the kiln is operating, except for periods of monitoring system malfunction, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control devices (including, as applicable, calibration checks and zero and span adjustments) (40 CFR 52.1396, 40 CFR 60, Subpart F and ARM 17.8.340).

At the end of each kiln operating day, Ash Grove shall calculate and record a new 30-day rolling average SO₂ and NO_x emission rate in lb/ton clinker from the arithmetic average of all valid hourly emission rates for the current kiln operating day and the previous 29 successive kiln operating days for each unit (40 CFR Part 52.1396).

- a. Ash Grove shall maintain on site the following records for at least five years (40 CFR Part 52.1396 and ARM 17.8.1212):
- b. All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.
- c. All particulate matter stack test results.
- d. All records of clinker production.
- e. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 60, Appendix F, Procedure 1.

- f. Records of all major maintenance activities conducted on emission units, air pollution control equipment, CEMS and clinker production measurement devices.
 - g. Any other records required by 40 CFR Part 60, Subpart F, or 40 CFR Part 60, Appendix F, Procedure 1.
- G.31. Ash Grove shall maintain on site, records of calibration as required by Section III.**Error! Reference source not found.** (ARM 17.8.1212).
- G.32. Ash Grove shall meet Regional Haze Requirements 40 CFR 52.1396 for recordkeeping, reporting, and equipment operation requirements as identified in 40 CFR 52.1396(h), 52.1396(i), and 52.1396(m), respectively (40 CFR 52.1396 and ARM 17.8.749)
- G.33. Ash Grove shall use the CEMS required under Section G.18 to monitor and record the NO_x and SO₂ emission rate in units of pounds of NO_x and SO₂ per ton of clinker and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 CFR Part 60. For purposes of the NO_x and SO₂ limits in Section II.G.3 and G.5, all emissions of NO_x and SO₂ from the kiln stack shall be measured by CEMS. Emissions from the kiln (in pounds) shall be calculated for each Operating Day and the previous 29 Operating Days and the total divided by the sum of the clinker produced (in tons) that Operating Day and the previous 29 Operating Days and the resulting value compared to the limit. During any time when CEMS are inoperable and otherwise not measuring emissions, Ash Grove shall use the average emission rate (lb/hr) from the most recent previous hour for which valid data are available (Consent Decree 32, 34, 35, 36, 51, 52, 53, 54, and ARM 17.8.749).
- G.34. Ash Grove shall calculate and record the 30-operating day rolling emission rates of mercury in lb/ton of clinker produced, as specified in 40 CFR 63.1350(k) (ARM 17.8.342 and 40 CFR 63, Subpart LLL).
- G.35. Ash Grove shall determine and record hourly and daily clinker production rates by either one of the two following methods:
- a. Install, calibrate, maintain, and operate a permanent weight scale system to measure and record weight rates of the amount of clinker produced in tons of mass per hour. The system for measuring hourly clinker production must be maintained within 5 ± percent accuracy; or
 - b. Install, calibrate, maintain, and operate a permanent weight scale system to measure and record weight rates of the amount of feed to the kiln in tons of mass per hour. Ash Grove shall calculate hourly clinker production rates using a kiln-specific feed-to-clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. This ratio should be updated no less frequently than once per month. If this ratio changes at clinker reconciliation, the new ratio must be used going forward, but it is not necessary to retroactively change clinker production rates previously estimated. The system for measuring hourly clinker production must be maintained within ±5 percent accuracy (Consent Decree 33, 63.1350, 52.1396 and ARM 17.8.749).

- G.36. For each continuous monitoring system (CMS) required in this section, Ash Grove must develop, and submit to the Department for approval upon request, a site-specific monitoring plan that addresses the following paragraphs “a” through “c”. This site-specific monitoring plan, if requested, must be submitted at least 30 days before the initial performance evaluation of Ash Grove’s CMS (ARM 17.8.749).
- a. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
 - b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
 - c. Performance evaluation procedures and acceptable criteria (e.g. calibrations).

Reporting

- G.37. Ash Grove shall submit Method 9, Method 5, Method 6 or other Department approved test reports in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212)
- G.38. Ash Grove shall comply with all applicable reporting and notification requirements contained in 40 CFR 63 Subpart LLL (ARM 17.8.342 and 40 CFR Part 63, Subpart LLL).
- G.39. Ash Grove shall submit a summary report semiannually, which contains the information specified in 40 CFR 63.10(e)(3)(vi) and 40 CFR 63.1354. The summary report shall include the following (ARM 17.8.1212, ARM 17.8.342 and 40 CFR Part 63):
- a. The company name and address of the affected source (40 CFR 63.10);
 - b. An identification of each hazardous air pollutant monitored at the affected source (40 CFR 63.10);
 - c. The beginning and ending dates of the reporting period (40 CFR 63.10);
 - d. A brief description of the process units (40 CFR 63.10);
 - e. The emission and operating parameter limitations specified in the relevant standard(s) (40 CFR 63.10);
 - f. The monitoring equipment manufacturer(s) and model number(s) (40 CFR 63.10);
 - g. The date of the latest CMS certification or audit (40 CFR 63.10);
 - h. The total operating time of the affected source during the reporting period (40 CFR 63.10);
 - i. An emission data summary (or similar summary if the owner or operator monitors control system parameters) (40 CFR 63.10);

- j. A CMS performance summary (or similar summary if the owner or operator monitors control system parameters) (40 CFR 63.10);
 - k. A description of any changes in CMS, processes, or controls since the last reporting period (40 CFR 63.10);
 - l. The name, title, and signature of the responsible official who is certifying the accuracy of the report (40 CFR 63.10);
 - m. The date of the report (40 CFR 63.10).
 - n. All exceedances of maximum control device inlet gas temperature limits (40 CFR 63.1354);
 - o. All failures to calibrate thermocouples and other temperature sensors (40 CFR 63.1354);
 - p. Notification of failure to conduct any combustion system component inspections conducted within the reporting period. (40 CFR 63.1354); and
 - q. All failures to comply with any provision of the Operation and Maintenance Plan (40 CFR 63.1354).
- G.40. Ash Grove shall submit excess emissions reports for SO₂ and NO_x emissions exceeding the limits in Sections III.G.3 and III.G.5. Reports shall be submitted semiannually, no later than the 30th day following the end of each semiannual period, respectively. The excess emissions reports shall be submitted to the Department as well as to the Director, Office of Enforcement, Compliance and Environmental Justice, U.S. Environmental Protection Agency, Region 8, and shall include the following:
- a. The magnitude, date(s), and duration of each period of excess emission,
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the unit,
 - c. The nature and cause of a malfunction (if known), and
 - d. The corrective action taken or preventative measures adopted.
 - e. CEMS performance reports including dates and duration of each period during which the CEMS was inoperative, reason(s) why the CEMS was inoperative, steps taken to prevent recurrence, and CEMS repairs or adjustments.
 - f. A statement indicating when no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted during the reporting period.

If installation of additional emission controls is necessary to comply with the SO₂ and NO_x emissions limitations under this rule, compliance is extended to October 18, 2017 (within five years of the effective date of this rule) in accordance with 40 CFR Part 52.1396 (40 CFR Part 52.1396).

- G.41. Ash Grove shall comply with all applicable reporting and notification requirements contained in Section XIV of the Consent Decree (Consent Decree Section XIV and ARM 17.8.1212).
- G.42. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- G.43. The semiannual monitoring report shall provide the following (ARM 17.8.1212 and 40 CFR Part 52.1396):
- A summary of results of any source testing that was performed during that semiannual period; and
 - The results of any CEMS performance tests required by 40 CFR Part 60, Appendix F, Procedure 1.

H. EU007 – Product Separator and Cement Coolers (PSC)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|---|----------------------------------|--|--|--|----------------------------|
| H.1, H.4, H.7, H.8, H.9, H.10, H.11 | Opacity | 40% | Method 9 | Once during 5- year permit term | As required by Protocol |
| H.2, H.5, H.8, H.9, H.10, H.11 | Particulate Matter | 0.02 gr/dscf | Method 5 | Once during 5- year permit term | As required by Protocol |
| H.3, H.6, H.7, H.10, H.11 | Emission Control Equipment | Operation and maintenance of emission control equipment | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |

Conditions

- H.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).
- H.2. Particulate emissions from the dust collection system (DA-9 East) shall not exceed 0.02 gr/dscf (ARM 17.8.752).
- H.3. Ash Grove shall operate and maintain emissions control equipment when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

- H.4. Ash Grove shall perform a Method 9 test once during the 5-year permit period to monitor compliance with the 40% opacity limit in Section III.H.1. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

- H.5. A Method 5 or other Department approved test shall be performed once during the 5-year permit period to monitor compliance with the particulate emission limit in Section III.H.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- H.6. Ash Grove shall operate, inspect, and maintain a baghouse in accordance with Appendix E to monitor compliance with Section III.H.3 (ARM 17.8.1213).

Recordkeeping

- H.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E. All inspections and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- H.8. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- H.9. All test reports shall be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- H.10. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- H.11. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212):

I. EU008 –Road Dust (RD)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|------------------------------|-----------------------------|------------------------|---|-----------|------------------------|
| I.1, I.3, I.5, I.6, I.7, I.8 | Opacity | 20% | Visual Survey | Weekly | Semiannual |
| I.2, I.4, I.5, I.6, I.7, I.8 | Airborne Particulate Matter | Reasonable Precautions | Water and/or chemical dust suppressants | As needed | Semiannual |

Conditions

- I.1. Ash Grove may not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.308(1)).

- I.2. Ash Grove shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308(2)).

Compliance Demonstration

- I.3. Once per calendar week, during daylight hours, Ash Grove shall visually survey active roads for any sources of excessive emissions. If visible emissions are observed during the visual survey, Ash Grove shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then Ash Grove shall immediately conduct a subsequent visual survey. The person conducting the visual survey shall record the results of the survey in a log, including any corrective action taken. Conducting a visual survey does not relieve Ash Grove of the liability for a violation determined using Method 9 (ARM 17.8.101(27) and ARM 17.8.1213).
- I.4. Ash Grove shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation (ARM 17.8.752).

Recordkeeping

- I.5. Ash Grove shall maintain on site a weekly log recording the results of the visual surveys. The log shall include, but is not limited to, the date, time, observer(s), observer(s) location, the area being surveyed, and the results of the visual survey(s). If any preventative or corrective action is required, the time, date, and a description of the action taken must be included in the log. The log shall be maintained as a permanent business record for at least five years following the activity. The log shall be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- I.6. If visual surveys are performed, Ash Grove shall maintain a log to verify that the visual surveys were performed as specified in Section III.I.3. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).

Reporting

- I.7. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- I.8. The semiannual monitoring report shall provide a summary of the log of any preventative and corrective actions as required by Section III.I.5 (ARM 17.8.1212):

J. EU009 –Storage Loadout – B (SLB)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|--|-------------------------|-----------------------------|--|---|--------------------------------|
| J.1, J.2, J.3, J.4, J.6, J.7, J.8, J.9 | Opacity | 40% | Method 9 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | O&M of baghouse | Whenever process equipment is operating | Semiannual |
| J.2, J.4., J.5., J.6., J.7, J.8, J.9 | Particulate Matter | E=55.0P ^{0.11} -40 | Method 5 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | O&M of baghouse | Whenever process equipment is operating | Semiannual |

Conditions

- J.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968 that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).
- J.2. Pursuant to ARM 17.8.310, the particulate emissions from process weight shall not exceed the value calculated by $E=55.0P^{0.11}-40$, where E = rate of emission in pounds per hour and P = process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

- J.3. As required by the Department and Section III.A.1, a Method 9 opacity test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- J.4. Ash Grove shall inspect and maintain a baghouse (DA-15) in accordance with Appendix E to monitor the opacity limit in Section III.J.1 and Section III.J.2 (ARM 17.8.1213).
- J.5. As required by the Department and Section III.A.1, Ash Grove shall perform a Method 5 test or another approved test to monitor compliance with the particulate emissions limit in Section III.J.2. The test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

- J.6. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- J.7. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- J.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- J.9. The semiannual reporting shall provide a summary of any source testing performed during the reporting period (ARM 17.8.1212).

K. EU010 – Stone Transfer (ST)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration | | Reporting Requirements |
|-----------------------------------|-------------------------|-----------------|--------------------------|---|---------------------------|
| | | | Method | Frequency | |
| K.1., K.2., K.3., K.4., K.5 | Opacity | 20% | Method 9 | As required by the Department and Section III.A.1 | Semiannual |

Conditions

- K.1. Ash Grove may not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater over six consecutive minutes (ARM 17.8.308).

Compliance Demonstration

- K.2. Ash Grove shall perform a Method 9 test on transfer points as requested by the Department and Section III.A.1 to monitor compliance with Section III.K.1. The test and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

- K.3. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- K.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- K.5. The semiannual reporting shall provide a summary of any source testing that was performed during the annual period (ARM 17.8.1212).

L. EU011 – Transfer Belt Conveyors (TBC)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|---|-------------------------|---------------------|--|---|--------------------------------|
| L.1, L.3, L.5, L.6, L.7, L.8, L.9 | Opacity | 40% | Method 9 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |
| L.2, L.4, L.5, L.6, L.7, L.8, L.9 | Particulate Matter | $E=55.0P^{0.11-40}$ | Method 5 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |

Conditions

- L.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968 that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).
- L.2. The particulate emissions from process weight shall not exceed the value calculated by $E=55.0 * P^{0.11-40}$, where E is the rate of emissions in pounds/hour and P is the process weight rate in tons/hour (ARM 17.8.310).

Compliance Demonstration

- L.3. As required by the Department and Section III.A.1, a Method 9 opacity test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- L.4. Ash Grove shall inspect and maintain a baghouse (DA-4) in accordance with Appendix E to monitor the opacity limit in Section III.L.1 (ARM 17.8.1213).
- L.5. As required by the Department and Section III.A.1, Ash Grove shall perform a Method 5 test or another approved test to monitor compliance with the particulate emissions limit in Section III.L.2. The test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

- L.6. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- L.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).

Reporting

- L.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- L.9. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

M. EU012 – Transfer/Convey to Ball Mill (TBM)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|--------------------------------------|-------------------------|---------------------|--|---|-------------------------------------|
| M.1, M.3, M.5, M.6, M.7, M.8, M.9 | Opacity | 40% | Method 9 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | Operation and Maintenance of baghouse | Whenever process equipment is operating | Semiannual |
| M.2, M.4, M.5, M.6, M.7, M.8, M.9 | Particulate Matter | $E=55.0P^{0.11}-40$ | Method 5 | As required by the Department and Section III.A.1 | As required by the Department |
| | | | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |

Conditions

- M.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968 that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).
- M.2. The particulate emissions from process weight shall not exceed the value calculated by $E=55.0 * P^{0.11}-40$, where E is the rate of emissions in pounds/hour and P is the process weight in tons/hour (ARM 17.8.310).

Compliance Demonstration

- M.3. As required by the Department and Section III.A.1, Ash Grove shall conduct a Method 9 opacity test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- M.4. As required by the Department and Section III.A.1, Ash Grove shall conduct a Method 5 test or another Department approved test to monitor compliance with the particulate emissions limit in Section III.M.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- M.5. Ash Grove shall inspect and maintain the baghouse (DA-6) in accordance with Appendix E of this permit to monitor compliance with the limits in Sections III.M.1 and III.M.2 (ARM 17.8.1213).

Recordkeeping

- M.6. All source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).
- M.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with Appendix E of this permit. All inspection and maintenance records shall be available to the Department for inspection and shall be submitted to the Department upon request (ARM 17.8.1212).

Reporting

- M.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- M.9. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

N. EU013 – Transfer to/from Finish Mill (TFM)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method | Frequency | Reporting Requirements |
|--|----------------------------------|--|---|--|-----------------------------------|
| N.1, N.5, N.10, N.12, N.13, N.14 | Opacity | 40% | Method 9 | Every 2 years | As required by the Protocol |
| N.2, N.6, N.10, N.12, N.13, N.14 | Particulate Matter | 0.02 gr/dscf | Method 5 | Every 2 years | As required by the Protocol |
| N.3, N.7, N.9, N.13, N.14 | Emission Control Equipment | Operation and maintenance of emission control equipment | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |
| N.4, N.8, N.11, N.14 | PM CAM Plan | ARM 17.8.1506 | Provisions from CAM Plan, Appendix F | Ongoing | Semiannual |

Conditions

- N.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).
- N.2. Particulate emissions from the dust collection system (DA-9 West) shall not exceed 0.02 gr/dscf (ARM 17.8.752).
- N.3. Ash Grove shall operate and maintain emission control equipment when process equipment is operating (ARM 17.8.749).

- N.4. Ash Grove shall provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at the Finish Mill House Baghouse for PM (ARM 17.8.1504).

Compliance Demonstration

- N.5. Ash Grove shall perform a Method 9 test every two years to monitor compliance with the opacity limit in Section III.N.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- N.6. Ash Grove shall conduct a Method 5 or another Department approved test every two years to monitor compliance with the particulate emission limit in Section III.N.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- N.7. Ash Grove shall operate, inspect, and maintain a baghouse in accordance with Appendix E of this permit to monitor compliance with Section III.N.3 (ARM 17.8.1213).
- N.8. Ash Grove shall monitor compliance by following the Compliance Assurance Monitoring (CAM) Plan (Appendix F). The CAM Plan, written by Ash Grove in accordance with ARM 17.8.1504 is summarized in Appendix F and is available in full upon request by the Department or the facility (ARM 17.8.1503 and ARM 17.8.1213).

Recordkeeping

- N.9. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).
- N.10. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- N.11. Ash Grove shall prepare and keep data in accordance with 40 CFR Part 64 and the CAM Plan, Appendix F of this permit (ARM 17.8.1212 and 40 CFR Part 64).

Reporting

- N.12. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- N.13. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- N.14. The semiannual monitoring report shall provide (ARM 17.8.1212):
- a. A summary of results of any source testing that was performed during the semiannual period; and

- b. Any reporting required by 40 CFR Part 64 (CAM), Appendix F, as applicable, during that semiannual period.

O. EU014 – Transfer to Limestone Silos (TLS)

| Condition(s) | Pollutant/ Parameter | Permit Limit | Compliance Demonstration Method Frequency | | Reporting Requirements |
|--|-------------------------|---------------------|--|---|-----------------------------------|
| O.1, O.3, O.5, O.6, O.7, O.8, O.9 | Opacity | 40% | Method 9 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |
| O.2, O.4, O.5, O.6, O.7, O.8, O.9 | Particulate Matter | $E=55.0P^{0.11}-40$ | Method 5 | As required by the Department and Section III.A.1 | As required by the Protocol |
| | | | Operation and maintenance of baghouse | Whenever process equipment is operating | Semiannual |

Conditions

- O.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).
- O.2. The particulate emissions from process weight shall not exceed the value calculated by $E=55.0 * P^{0.11} - 40$, where e is the rate of emissions in pounds/hour and P is the process weight rate in tons/hour (ARM 17.8.310).

Compliance Demonstration

- O.3. As required by the Department and Section III.A.1, Ash Grove shall perform a Method 9 opacity test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).
- O.4. As required by the Department and Section III.A.1, Ash Grove shall perform a Method 5 or another Department approved test to monitor compliance with the particulate emissions limit in Section III.O.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures (ARM 17.8.106 and ARM 17.8.1213).
- O.5. Ash Grove shall inspect and maintain the baghouse (DA-5) in accordance with Appendix E of this permit to monitor compliance with the limits in Sections III.O.1 and O.2 (ARM 17.8.1213).

Recordkeeping

- O.6. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106).

- O.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).

Reporting

- O.8. The annual compliance certification must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- O.9. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

P. EU015 – Wind Erosion (WE) – (from quarry activities)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration | | Reporting Requirements |
|----------------------------|-----------------------------|--------------|--------------------------|--|------------------------|
| | | | Method | Frequency | |
| P.1, P.2, P.3, P.4, P.5 | Airborne Particulate Matter | 20% | Method 9 | As required by the Department and Section IIIA.1 | Annually |

Conditions

- P.1. Ash Grove may not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.308(1)).

Compliance Demonstration

- P.2. Ash Grove shall perform a Method 9 test as required by the Department and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

- P.3. Ash Grove shall maintain on site any Method 9 test report. The test report shall be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- P.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- P.5. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

Q. EU016 – 105-hp Auxiliary Kiln Drive (Stationary Diesel) Engine (AUXE)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration | | Reporting Requirements |
|-------------------------|---------------------|----------------------------|--------------------------|-------------------------|------------------------|
| | | | Method | Frequency | |
| Q.1, Q.2, Q.3, Q.4, Q.5 | Engine Maintenance | Inspection and Maintenance | 40 CFR 63, Subpart ZZZZ | 40 CFR 63, Subpart ZZZZ | Semiannual |

Conditions

- Q.1. Ash Grove shall comply with inspection, maintenance, and operation requirements for the 105-hp Auxiliary Kiln Drive Engine including (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ):
- Changing oil and filter every 1,000 hours of operation or annually, whichever comes first;
 - Inspecting air cleaner every 1,000 hours of operation or annually, whichever comes first and replacing as necessary.
 - Inspecting all hoses and belts every 500 hours of operation or annually, whichever comes first and replacing as necessary, and
 - Minimizing the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time, the non-startup emission limitations apply.

Compliance Demonstration

- Q.2. Ash Grove shall maintain compliance with the described requirements in Section III.Q.1 (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

Recordkeeping

- Q.3. Ash Grove shall keep records of the maintenance conducted on the 105-hp Auxiliary Kiln Drive Engine to demonstrate that the 105-hp Auxiliary Kiln Drive Engine was operated and maintained according to the Ash Grove maintenance plan (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

Reporting

- Q.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- Q.5. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

R. EU017 – Gasoline Dispensing (GD)

| Condition(s) | Pollutant/Parameter | Permit Limit | Compliance Demonstration | | Reporting Requirements |
|-------------------------|---------------------|---------------------------|---------------------------|---------------------------|------------------------|
| | | | Method | Frequency | |
| R.1, R.2, R.3, R.4, R.5 | Gasoline Dispensing | 40 CFR 63, Subpart CCCCCC | 40 CFR 63, Subpart CCCCCC | 40 CFR 63, Subpart CCCCCC | Semiannual |

Conditions

- R.1. When handling gasoline dispensing, Ash Grove shall take measures to (ARM 17.8.342 and 40 CFR 63, Subpart CCCCCC):
- Minimize gasoline spills;
 - Clean up spills as expeditiously as practical;
 - Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and
 - Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

Compliance Demonstration

- R.2. Ash Grove shall maintain compliance with the described requirements in Section III.R.1 (ARM 17.8.342 and 40 CFR 63, Subpart CCCCCC).

Recordkeeping

- R.3. Ash Grove shall maintain records as described in 40 CFR 63.1125, as applicable (ARM 17.8.342 and 40 CFR 63, Subpart CCCCCC).

Reporting

- R.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- R.5. The semiannual monitoring report shall provide a summary of results of any deviations from 40 CFR 63, Subpart CCCCCC (ARM 17.8.1212).

SECTION IV. NON-APPLICABLE REQUIREMENTS

Air Quality Administrative Rules of Montana (ARM) and Federal Regulations identified as not applicable to the facility or to a specific emissions unit at the time of the permit issuance are listed below (ARM 17.8.1214). The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

A. Facility-Wide

The following table contains non-applicable requirements that are administrated by the Air Quality Bureau of the Department of Environmental Quality.

| Rule Citation | Reason |
|---|--|
| ARM 17.8.320 ARM 17.8.321 ARM 17.8.323 ARM 17.8.330 through 334 ARM 17.8.340 | These rules are not applicable because the facility is not listed in the source category cited in the rule. |
| ARM 17.8.1106 to 1107 ARM 17.8.1110 to 1111 | These rules do not apply because no changes have been made at the facility that would trigger these procedural requirements. |
| 40 CFR 60, Subparts C, Ca, Cb, Cc, Cd 40 CFR 60, Subparts D, Da, Db, Dc 40 CFR 60, Subparts E, Ea, Eb 40 CFR 60, Subpart G, H, I, J 40 CFR 60, Subparts K, Ka, Kb 40 CFR 60, Subparts L-X 40 CFR 60, Subpart Z 40 CFR 60, Subparts AA-EE 40 CFR 60, Subparts GG-HH 40 CFR 60, Subparts KK-NN 40 CFR 60, Subparts PP-XX 40 CFR 60, Subparts AAA-BBB 40 CFR 60, Subparts DDD 40 CFR 60, Subparts FFF-LLL 40 CFR 60, Subpart NNN 40 CFR 60, Subparts PPP-QQQ 40 CFR 60, Subparts RRR-WWW 40 CFR 60, Subparts BBBB-DDDD 40 CFR 60, Subpart AAAA 40 CFR 60, Subpart EEEE-FFFF 40 CFR 60, Subparts HHHH-MMMM 40 CFR 60, Subparts OOOO 40 CFR 61, Subparts B-F 40 CFR 61, Subparts H-L 40 CFR 61, Subparts N-R 40 CFR 61, Subpart T 40 CFR 61, Subparts V-W 40 CFR 61, Subpart Y 40 CFR 61, Subpart BB | These requirements are not applicable because the facility is not an affected source as defined in these regulations. |

| | |
|---|--|
| 40 CFR 61, Subpart FF 40 CFR 63, Subparts F-J 40 CFR 63, Subparts L-O 40 CFR 63, Subparts Q-U 40 CFR 63, Subparts W-Y 40 CFR 63, Subparts AA-EE 40 CFR 63, Subparts GG-MM 40 CFR 63, Subparts OO-WW 40 CFR 63, Subpart YY 40 CFR 63, Subparts CCC-EEE 40 CFR 63, Subparts GGG-JJJ 40 CFR 63, Subparts MMM-RRR 40 CFR 63, Subparts TTT-VVV 40 CFR 63, Subpart XXX 40 CFR 63, Subpart AAAA 40 CFR 63, Subpart CCCC-KKKK 40 CFR 63, Subparts MMMM-YYYY 40 CFR 63, Subparts AAAAAA-NNNNN 40 CFR 63, Subparts PPPPP-UUUUU 40 CFR 63, Subparts WWWWW-ZZZZZ 40 CFR 63, Subpart BBBB 40 CFR 63, Subparts DDDDDD- HHHHHH, 40 CFR 63, Subpart JJJJJ 40 CFR 63, Subparts LLLLLL-TTTT 40 CFR 63, Subparts VVVVVV-ZZZZZZ 40 CFR 63, Subparts AAAAAA- EEEEEE 40 CFR 63, Subparts HHHHHHH 40 CFR 63, Appendices B-E 40 CFR 68 40 CFR 72-78 40 CFR 79-80 40 CFR 85-97 (83 and 84 are reserved) | |
|---|--|

B. Emission Units

The permit application identified applicable requirements: non-applicable requirements for individual or specific emission units were not listed. The Department has listed all non-applicable requirements in Section IV.A, these requirements relate to each specific unit, as well as facility wide.

C. Streamlining Provisions

As requested in the Title V permit application, the Department has determined that pursuant to ARM 17.8.1212, that a number of permit conditions were able to be streamlined as described in the March 5, 1996, EPA Memorandum titled, “White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program”. Similar permit conditions as required by 40 CFR 63, Subpart LLL (Portland Cement MACT), the Ash Grove Consent Decree (Consent Decree in United States v. Ash Grove Cement Co., Case No. 2:13-cv-02299-JTM-DJW, doc. 27 (D. Kan. 8/14/13), as amended by doc. 28 on 10/16/15) and the Regional Haze Federal Implementation Plan provisions were simplified by taking the most stringent condition and including only that permit condition within the permit. The conditions which have been “subsumed” are described below.

| Streamlined Rule Citation | Subsumed Rule | Reason |
|--|---|--|
| Consent Decree 57 and ARM 17.8.749; Ash Grove shall install and operate baghouse control technology on the kiln exhaust and may not exceed a filterable PM emission rate of 0.07 lb/ton of clinker based on a 30-day rolling average from the kiln during startup, shutdown, malfunction and normal operation. | Until September 9, 2015 (effective date of 40 CFR 63 Subpart LLL), Ash Grove shall not cause or authorize to be discharged into the atmosphere from the cement kiln any stack emissions which contain particulate matter in excess of the amount allowed by the following equations (in III.G.2.(a) and (b)). This emission limitation shall apply at all times, including startups, shutdowns, emergencies and malfunctions (ARM 17.8.310, ARM 17.8.752, and 40 CFR Part 52.1396): a. If the process weight rate of the kiln is less than or equal to 30 tons per hour, then the emission limit shall be calculated using $E = 4.10p^{0.67}$ where E = rate of emission in pounds per hour and p = process weight rate in tons per hour. b. If the process weight rate of the kiln is greater than 30 tons per hour, then the emission limit shall be calculated using $E = 55.0p^{0.11} - 40$, where E = rate of emission in pounds per hour and P = process weight rate in tons per hour. | Consent Decree is more stringent than the process weight rule. |
| Same as above | Ash Grove may not exceed a PM emission rate of 0.07 lb/ton of clinker produced from the kiln stack excluding startup and shutdown periods based on an annual Method 5 stack performance test and a PM continuous parametric monitoring system (PM CPMS). | Consent Decree is more stringent than 40 CFR Part 52.1396. |

| Streamlined Rule Citation | Subsumed Rule | Reason |
|--|---|---|
| | <p>Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance. For all reporting under 40 CFR 63 Subpart LLL, Startup means the period starting when a shutdown kiln first begins firing fuel and ending when it begins producing clinker. Startup “begins” when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup “ends” when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first (40 CFR 63 Subpart LLL, ARM 17.8.342 and ARM 17.8.749).</p> | |
| <p>Consent Decree 47 and ARM 17.8.749: By September 10, 2014, Ash Grove shall install and operate Semi-Dry Scrubbing control technology on the kiln stack and shall demonstrate compliance with an SO₂ emission limit of 2.0 lb/ton of clinker based on a 30-day rolling average including, startup, shutdown, and malfunction periods by the 210th operating day after September 10, 2014, (Consent Decree 47 and ARM 17.8.749).</p> | <p>Ash Grove shall apply a sulfur dioxide control process (the kiln) to remove the sulfur dioxide from the gases emitted by burning of fuel of any sulfur content which results in an emission of sulfur in pounds per hour not in excess of the pounds per hour of sulfur that would have been emitted by burning fuel of the sulfur content indicated without such a cleaning device (ARM 17.8.322).</p> | <p>Consent Decree is the most stringent condition. Compliance with the Consent Decree limit assures compliance with this limit as well.</p> |
| <p>Same as above.</p> | <p>Ash Grove may not exceed a sulfur dioxide (SO₂) emission rate of 11.5 lb/ton of clinker no later than April 17, 2013 (180 days following October 18, 2012). Ash Grove shall limit SO₂ emissions from the kiln during startup, shutdown, malfunction, emergencies and normal operation to 11.5 lb/ton of clinker produced based on a 30-day rolling average. An SO₂ Continuous Emission Monitoring system (CEMS) shall be maintained, calibrated and operated at all times to demonstrate compliance with the</p> | <p>Consent Decree is the most stringent condition. Compliance with the Consent Decree limit assures compliance with this limit as well.</p> |

| Streamlined Rule Citation | Subsumed Rule | Reason |
|---|--|---|
| | emission limit and shall satisfy CEMS requirements under 40 CFR 52. (Regional Haze FIP 40 CFR 52.1396 and ARM 17.8.749). | |
| Consent Decree 27 and ARM 17.8.749. Ash Grove shall install and operate by September 10, 2014, selective non-catalytic reduction (SNCR) control technology, and demonstrate compliance with the 7.5 lb/ton of clinker based on a 30-day rolling average including startup, shutdown, and malfunction periods, beginning by the 30th operating day after 9/10/2014 | Ash Grove may not exceed a NOx emissions rate of 7.5 lb/ton of clinker no later than October 18, 2017. Ash Grove shall limit NOx emissions from the kiln during startup, shutdown, malfunction, emergencies and normal operation to 7.5 lb/ton of clinker produced based on a 30-day rolling average. Commencing on October 18, 2017, Ash Grove shall maintain, calibrate and operate a NOx CEMS at all times to demonstrate compliance with the emission limit and shall satisfy CEMS requirements under 40 CFR 52 (Regional Haze FIP 40 CFR 52.1396 and ARM 17.8.749). | Consent Decree is the most stringent condition. Compliance with the Consent Decree limit assures compliance with this limit as well. |
| Ash Grove shall install, operate, and maintain a PM CPMS on the kiln and establish a Site-Specific Operating Limit (SSOL) for PM in accordance with the requirements of Appendix B of the Consent Decree and 40 CFR 1350(b) and (d). Ash Grove shall conduct the performance test using EPA Method 5 or Method 5I of Appendix A-3 of 40 CFR Part 60. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the following exceptions: If demonstrating compliance with 40 CFR Part 52.1396, the test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet, per 40 CFR Part 52.1396. Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance. The compliance demonstration shall be an initial test and within 365 operating days thereafter. Ash Grove may | Within 60 days of the compliance deadline and at least once per calendar year thereafter, Ash Grove shall perform a Method 5 stack test to monitor compliance with the particulate matter limit in Section III.G.2. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the following exceptions: the test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. The average of the results of three test runs shall be used by the owner/operator for demonstrating compliance (ARM 17.8.106, ARM 17.8.1213, and 40 CFR Part 52.1396). | Consent Decree requirement contains the most stringent monitoring condition. Compliance with the Consent Decree assures compliance with the subsumed condition. The Regional Haze requirement contains specific run times and volumes, while the PC MACT requirement specifies that that no condensable PM emissions are included in the Method 5 tests or in determining compliance. These two conditions have been included in the modified permit condition. |

| Streamlined Rule Citation | Subsumed Rule | Reason |
|--|--|---|
| employ the SSOL methodology in 40 CFR 3.1349(b) in lieu of this methodology (Consent Decree 56, 59, 60, and ARM 17.8.749). | | |
| Ash Grove shall install and operate a NO _x CEMS and SO ₂ CEMS at each stack from which the kiln directly discharges emissions. The CEMS shall be operated at all times during kiln operation except during CEMS breakdowns, repairs, calibration checks and zero and span adjustments (Consent Decree 32, 34, 51, 52, and ARM 17.8.749). | Ash Grove shall, at all times after April 17, 2013 (180 days following October 18, 2012), maintain, calibrate, and operate a continuous emissions monitoring system (CEMS) in full compliance with the requirements found at 40 CFR 60.63 (f) and (g) to accurately measure and record concentration by volume of SO ₂ and NO _x emissions into the atmosphere. If installation of additional emission controls is necessary to comply with the SO ₂ and NO _x emissions limitations under this rule, compliance is extended to October 18, 2017 (within five years of the effective date of this rule) in accordance with 40 CFR Part 52.1396. The CEMS shall be used in combination with data on actual clinker production to monitor compliance with the limits in Section III.G.2 and III.G.3 (40 CFR Part 52.1396). | The Consent Decree requirements contains the most stringent NO _x and SO ₂ monitoring condition, Compliance with the Consent Decree condition assures compliance with the subsumed conditions. |

SECTION V. GENERAL PERMIT CONDITIONS

A. Compliance Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.
4. The permittee shall furnish to the Department, within a reasonable time set by the Department (not to be less than 15 days), any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.
5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.
6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

B. Certification Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

2. Compliance certifications shall be submitted by February 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).
3. Compliance certifications shall include the following:
 - a. The identification of each term or condition of the permit that is the basis of the certification
 - b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term and condition during the certification period, consistent with ARM 17.8.1212
 - c. The status of compliance with each term and condition for the period covered by the certification, *including whether compliance during the period was continuous or intermittent* (based on the method or means identified in ARM 17.8.1213(7)(c)(ii), as described above)
 - d. Such other facts as the Department may require to determine the compliance status of the source
4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix C of this permit.

C. Permit Shield

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.
2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.
3. Nothing in this permit alters or affects the following:
 - a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance
 - c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA

- d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA
 - e. The ability of the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA
 - f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA
 - g. The ability of the Department to establish or revise requirements for the use of Reasonably Available Control Technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.
- 4. Nothing in this permit alters or affects the ability of the Department to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.
 - 5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.
 - 6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).
 - 7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & N).

D. Monitoring, Recordkeeping, and Reporting Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1212(2)&(3)

- 1. Unless otherwise provided in this permit, the permittee shall maintain compliance monitoring records that include the following information:
 - a. The date, place as defined in the permit, and time of sampling or measurement
 - b. The date(s) analyses were performed
 - c. The company or entity that performed the analyses
 - d. The analytical techniques or methods used
 - e. The results of such analyses
 - f. The operating conditions at the time of sampling or measurement

2. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is made available to Department personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to Department personnel upon request.
3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses Appendix C of this permit, reports of any required monitoring by February 15 and August 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on February 15 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on August 15 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

E. Prompt Deviation Reporting

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(b)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported to the Department within the following timeframes (unless otherwise specified in an applicable requirement):

1. For deviations which may result in emissions potentially in violation of permit limitations:
 - a. An initial phone notification (or faxed or electronic notification) describing the incident within 24 hours (or the next business day) of discovery: and,
 - b. A follow-up written, faxed, or electronic report within 30 days of discovery of the deviation that describes the probable cause of the reported deviation and any corrective actions or preventative measures taken.
2. For deviations attributable to malfunctions, deviations shall be reported to the Department in accordance with the malfunction reporting requirements under ARM 17.8.110; and
3. For all other deviations, deviations shall be reported to the Department via a written, faxed, or electronic report within 90 days of discovery (as determined through routine internal review by the permittee).

Prompt deviation reports do not need to be resubmitted with regular semiannual (or other routine) reports, but may be referenced by the date of submittal.

F. Emergency Provisions

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13) and §1214(5), (6)&(8)

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:
 - a. An emergency occurred and the permittee can identify the cause(s) of the emergency
 - b. The permitted facility was at the time being properly operated
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit
 - d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(b). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

G. Inspection and Entry

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of the Department or the administrator) to perform the following:
 - a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit

- c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit
 - d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements
2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

H. Fee Payment

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.
2. Annually, the Department shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.
3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, the Department may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or \$100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

I. Minor Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.
2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

J. Changes Not Requiring Permit Revision

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:
 - a. The proposed changes do not require the permittee to obtain an air quality preconstruction permit under ARM Title 17, Chapter 8, Subchapter 7;
 - b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;
 - c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;
 - d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and
 - e. The facility provides the administrator and the Department with written notification at least seven days prior to making the proposed changes.
2. The permittee and the Department shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.
3. Pursuant to the conditions above, the permittee is authorized to make Sec. 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:
 - a. Each proposed change does not weaken the enforceability of any existing permit conditions;
 - b. The Department has not objected to such change;
 - c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and
 - d. The permittee provides contemporaneous written notice to the Department and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

K. Significant Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:
 - a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment
 - b. Every significant change in existing permit monitoring terms or conditions
 - c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule or
 - d. Any other change determined by the Department to be significant
2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.
3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

L. Reopening for Cause

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

This permit may be reopened and revised under the following circumstances:

1. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed no later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);
2. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;

3. The Department or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or
4. The administrator or the Department determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

M. Permit Expiration and Renewal

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of five years.
2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.
3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.
4. For renewal, the permittee shall submit a complete air quality operating permit application to the Department not later than six months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, the Department may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

N. Severability Clause

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by the Department of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.
2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

O. Transfer or Assignment of Ownership

ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to the Department a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.
2. The permit shield provided for in ARM17.8.1214 shall not extend to administrative permit amendments.

P. Emissions Trading, Marketable Permits, Economic Incentives

ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

Q. No Property Rights Conveyed

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

R. Testing Requirements

ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

S. Source Testing Protocol

ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

T. Malfunctions

ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

U. Circumvention

ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

V. Motor Vehicles

ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

W. Annual Emissions Inventory

ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply the Department with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

X. Open Burning

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

Y. Montana Air Quality Permits

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §745 and 764 (

1. Except as specified, no person shall construct, install, alter or use any air contaminant source or stack associated with any source without first obtaining a permit from the Department or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).
2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.
3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding an air quality preconstruction permit issued under Chapter 8 that does not increase the facility's potential to emit by more than 5 tons per year of any pollutant, except
 - a. Any construction or changed condition that would violate any condition in the facility's existing air quality preconstruction permit or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);
 - b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;
 - c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;
 - d. Any construction or improvement project with a potential to emit more than 5 tons per year may not be artificially split into smaller projects to avoid air quality preconstruction permitting; or
 - e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.

4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify the Department if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1).

Z. National Emission Standard for Asbestos

40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

AA. Asbestos

ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq.*, and ARM 17.74.401, *et seq.* (State only)

BB. Stratospheric Ozone Protection – Servicing of Motor Vehicle Air Conditioners

40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

CC. Stratospheric Ozone Protection – Recycling and Emission Reductions

40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156;
2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161;
4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166;
5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and

6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

DD. Emergency Episode Plan

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to the Department a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

EE. Definitions

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix B of this permit, shall have the meaning assigned to them in the referenced regulations.

APPENDICES

Appendix A. INSIGNIFICANT EMISSION UNITS

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist Ash Grove, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emissions unit located within a source that: (i) has a potential to emit less than five tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to Sec. 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

List of Insignificant Activities:

The following table of insignificant sources and/or activities were provided by Ash Grove. Because there are no requirements to update such a list, the emission units and/or activities may change from those specified in the table.

| Emissions Unit ID | Description |
|-------------------|---|
| CCP | Coal/Coke Preparation |
| CDA | Clinker Drag Conveyor A |
| CDB | Clinker Drag Conveyor B |
| CSA | Transfer to/from Cement Storage Silos A |
| CSB | Transfer to/from Cement Storage Silos B |
| DL | Dust Loadout |
| DT | Dust Return System |
| EC | Clinker Bucket Conveyor |
| LS | Lime Silo |
| PLO2 | Product Loadout 2 |
| PST | Petroleum Storage Tanks |
| QA | Quarry Activities |
| RT | Raw Material Transfer |
| SC | Slag/Silica/Clinker Conveyors |
| SLA | Storage Loadout A |
| SLM | Specialty Bin |
| SLN | Storage Loadout at New Silos |
| TFS | Transfer from Silos |
| TSC | Transfer/Secondary Crushing |
| VE | Vehicle Emissions |
| OFH | Used Oil Fired Heater |

Appendix B. DEFINITIONS and ABBREVIATIONS

"Act" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq.*

"Administrative permit amendment" means an air quality operating permit revision that:

- (a) Corrects typographical errors
- (b) Identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source
- (c) Requires more frequent monitoring or reporting by Ash Grove
- (d) Requires changes in monitoring or reporting requirements that the Department deems to be no less stringent than current monitoring or reporting requirements
- (e) Allows for a change in ownership or operational control of a source if the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225 or
- (f) Incorporates any other type of change that the Department has determined to be similar to those revisions set forth in (a)-(e), above

"Applicable requirement" means all of the following as they apply to emission units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

- (a) Any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA
- (b) Any federally enforceable term, condition or other requirement of any air quality preconstruction permit issued by the Department under Subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D
- (c) Any standard or other requirement under Sec. 7411 of the FCAA, including Sec. 7411(d)
- (d) Any standard or other requirement under Sec. 7412 of the FCAA, including any requirement concerning accident prevention under Sec. 7412(r)(7), but excluding the contents of any risk management plan required under Sec. 7412(r)
- (e) Any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder

- (f) Any requirements established pursuant to Sec. 7661c(b) or Sec. 7414(a)(3) of the FCAA
- (g) Any standard or other requirement governing solid waste incineration, under Sec. 7429 of the FCAA
- (h) Any standard or other requirement for consumer and commercial products, under Sec. 7511b(e) of the FCAA
- (i) Any standard or other requirement for tank vessels, under Sec. 7511b(f) of the FCAA
- (j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit
- (k) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Sec. 7661c(e) of the FCAA or
- (l) Any federally enforceable term or condition of any air quality open burning permit issued by the Department under Subchapter 6

"Department" means the Montana Department of Environmental Quality.

"Excess Emissions" means any visible emissions from a stack or source, viewed during the visual surveys, that meets or exceeds 15% opacity (or 30% opacity if associated with a 40% opacity limit) during normal operating conditions.

"Emissions unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Sec. 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

"FCAA" means the Federal Clean Air Act, as amended.

"Federally enforceable" means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana state implementation plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana state implementation plan and expressly requires adherence to any permit issued under such program.

"Fugitive emissions" means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"General air quality operating permit" or "general permit" means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

"Hazardous air pollutant" means any air pollutant listed as a hazardous air pollutant pursuant to Sec. 112(b) of the FCAA.

"Non-federally enforceable requirement" means the following as they apply to emission units in a source requiring an air quality operating permit:

- (a) Any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA
- (b) Any term, condition or other requirement contained in any air quality preconstruction permit issued by the Department under Subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable
- (c) Does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter

"Permittee" means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

"Regulated air pollutant" means the following:

- (a) Nitrogen oxides or any volatile organic compounds
- (b) Any pollutant for which a national ambient air quality standard has been promulgated
- (c) Any pollutant that is subject to any standard promulgated under Sec. 7411 of the FCAA
- (d) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA or
- (e) Any pollutant subject to a standard or other requirement established or promulgated under Sec. 7412 of the FCAA, including but not limited to the following:
 - (i) Any pollutant subject to requirements under Sec. 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in Sec. 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in Sec. 7412(e) of the FCAA
 - (ii) Any pollutant for which the requirements of Sec. 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Sec. 7412(g)(2) requirement

"Responsible official" means one of the following:

- (a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars) or
 - (ii) The delegation of authority to such representative is approved in advance by the Department
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively
- (c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).
- (d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

Abbreviations:

| | |
|------------------|---|
| ARM | Administrative Rules of Montana |
| ASTM | American Society of Testing Materials |
| BACT | Best Available Control Technology |
| BDT | bone dry tons |
| BTU | British Thermal Unit |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEQ | Department of Environmental Quality |
| dscf | dry standard cubic foot |
| dscfm | dry standard cubic foot per minute |
| EEAP | Emergency Episode Action Plan |
| EPA | U.S. Environmental Protection Agency |
| EPA Method | Test methods contained in 40 CFR 60, Appendix A |
| EU | emissions unit |
| FCAA | Federal Clean Air Act |
| gr | grains |
| HAP | hazardous air pollutant |
| IEU | insignificant emissions unit |
| Mbdft | thousand board feet |
| Method 5 | 40 CFR 60, Appendix A, Method 5 |
| Method 9 | 40 CFR 60, Appendix A, Method 9 |
| MMbdft | million board feet |
| MMBTU | million British Thermal Units |
| NO _x | oxides of nitrogen |
| NO ₂ | nitrogen dioxide |
| O ₂ | oxygen |
| Pb | lead |
| PM | particulate matter |
| PM ₁₀ | particulate matter less than 10 microns in size |
| psi | pounds per square inch |
| scf | standard cubic feet |
| SIC | Source Industrial Classification |
| SO ₂ | sulfur dioxide |
| SO _x | oxides of sulfur |
| tpy | tons per year |
| U.S.C. | United States Code |
| VE | visible emissions |
| VOC | volatile organic compound |

Appendix C. NOTIFICATION ADDRESSES

Compliance Notifications:

Montana Department of Environmental Quality
Air, Energy, & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901

United States EPA
Air Program Coordinator
Region VIII, Montana Office
10 W. 15th Street, Suite 3200
Helena, MT 59626

Permit Modifications:

Montana Department of Environmental Quality
Air, Energy, & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901

Office of Partnerships and Regulatory Assistance
Air and Radiation Program
US EPA Region VIII 8P-AR
1595 Wynkoop Street
Denver, CO 80202-1129

Appendix D. AIR QUALITY INSPECTOR INFORMATION

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist Ash Grove, permitting authority, inspectors, and the public.

1. Direction to Plant:

Exit Interstate 15 at the Montana City exit. Proceed east on Highway 518 for approximately 1 mile. The facility is located directly south of Highway 518.

2. Safety Equipment Required:

- a. All inspectors will be required to wear hard hats at all times when in the plant area. Hard hats will be furnished by the inspector and are to be maintained in good repair.
- b. Protective eye equipment will be used. Eye protection is mandatory in all plant areas. Safety glasses will meet or exceed ANSI Standard Z-87.
- c. Respirators and other personal equipment are to be used where needed and all such equipment will be provided by the inspector.
- d. Steel-toed safety boots shall be worn by all inspectors.
- e. Hearing protection with a minimum noise reduction rating of 24 DBA is mandatory in posted areas.

3. Facility Plot Plan:

A copy of the facility Plot Plan is on file with the Department or may be received by contacting an Ash Grove representative.

Appendix E. Pollution Control Device Inspection and Maintenance Plan

Although the hard copy of the Pollution Control Device Inspection and Maintenance (PCDI&M) Plan has been removed from the permit, the contents of the PCDI&M Plan remain as applicable requirements as stated in the Title V Operating Permit #OP2005-10. Ash Grove Cement Company submitted the PCDI&M Plan to the Department as part of the application for the current permitting action. To receive a hard copy of the PCDI&M Plan, please contact one of the following:

The Department of Environmental Quality
Air, Energy, & Mining Division
Air Quality Bureau
1520 E. Sixth Ave.
P.O. Box 200901
Helena, MT 59620-0901
Bureau Telephone # (406) 444-3490

Or

Ash Grove Cement Company
100 Montana Highway 518
Clancy, MT 59634

Appendix F. CAM Plan – Transfer to/from Finish Mill

| Monitoring Approach - Baghouse | |
|---------------------------------------|---|
| I. Indicator | Baghouse Differential Pressure |
| Measurement Approach | Inlet and outlet of the baghouse is monitored using a differential pressure transducer. The signal from the pressure transducer is recorded using a data acquisition system. |
| II. Indicator Range ¹ | An excursion is defined as a daily average differential pressure of below 2 or above 10 inches of water pressure. An excursion triggers an inspection and possible corrective action. |
| III. Performance Criteria | |
| A. Data Representativeness | Pressure drop across the baghouse is measured across the tube sheet. The minimum accuracy of the device is ± 1 inch water pressure |
| B. Verification of Operational Status | N/A |
| C. QA/QC Practices and Criteria | Pressure transducer is calibrated in accordance with manufacturer's recommendations. |
| D. Monitoring Frequency | Pressure drop is continuously monitored and recorded. Data is stored in the plant histories and is accessed by the data acquisition system. |
| E. Data Collection Procedures | A data acquisition system measures pressure drop continuously |
| F. Averaging Period | 24-hour |

¹The above indicator ranges are a 24-hour average pressure range. Short-term spikes above or below this average do not necessarily indicate upset conditions. After cleaning, there may be a period of time required for the bags to build up a coating. During this period of time, the baghouse differential pressure may be out of range.

Although a complete hard copy of Ash Grove's Transfer to/from Finish Mill Baghouse CAM plan is not included in F of the permit, the contents of, Ash Grove's CAM plan remain as applicable requirements as stated in the Title V Operating Permit #OP2005-10. To receive a hard copy of Ash Grove's Finish Transfer to/from Finish Mill Baghouse CAM plan, please contact one of the following:

The Department of Environmental Quality
Air, Energy, & Mining Division
Air Quality Bureau
1520 E. Sixth Ave.
P.O. Box 200901
Helena, Montana 59620-0901
Bureau Phone (406) 444-3490

OR

Ash Grove Cement Plant.
Montana City Plant
100 MT Highway 518
Clancy, MT 59634
Phone (406) 442-8855